

Note to Agents

Contents of this folder were developed from the **Urban Nutrient Runoff and Pet Waste** campaign. This program expands on the **No P On My Lawn!** program to educate homeowners on the leading P inputs to urban stormwater runoff: fertilizer and dog waste. The program is designed to educate homeowners and pet owners on the negative impacts of excess P in our waterways and encourage simple best management practices they can implement to reduce excess P runoff. *(This was initiated during 2020/Covid and was largely virtual. The program will be further refined/revised with the in-person campaign planned for 2022)*

Goal: To increase homeowner knowledge of issues associated with excess nutrient application to their lawns including over-fertilization and inadvertent P inputs from dog waste. The premise is that an informed and engaged public will apply best management practices that reduce nutrient loading to our waterways and result in improved water quality.

Supporting Research: According to the EPA, nutrient pollution is one of America's most challenging environmental problems and leading the list of contaminants is phosphorous. Research focusing on urban areas around the nation indicate that there are two major sources of phosphorus (P) in stormwater: fertilizer and canine excrement. Over 20 years (1990 – 2014) of soils data show that 79% of Kentucky home lawns and gardens exceed the maximum recommendations for phosphorous fertilizer applications. Analyses from over 1,000 canine waste samples show that dog waste is nutrient rich with 3.1% P. Previous studies demonstrated that dog owners pick up waste in public places 60% of the time. Reducing P inputs from domestic canines is particularly important to Kentucky as the Commonwealth ranks 3rd in the number of dogs per household in the United States. Over fertilization, improperly timed nutrient applications, and abandoned pet waste increase nutrient loads to stormwater runoff which leads to impaired water quality in the Commonwealth.

Program Purpose:

- Increase home/pet-owners' knowledge of the sources of P in their home landscape
- Increase home/pet-owner awareness of the impacts of excess phosphorus
- Engage pet owners to develop pet waste management practices in public and private spaces.
- Increase the number of pet owners who pick up after their pet in public and private spaces.

Program Strategy:

- Conduct surveys to assess dog owner perceptions and practices. Perform observational surveys at four local dog parks over the course of a week each. Observations were collected over a 2 hour period in the AM and PM.
- Develop educational materials to disseminate through partnering organizations such as pet-oriented businesses/organizations
- Deliver workshops to neighborhood associations and community groups

- Utilize incentive items to encourage public participation in surveys
- Partner with other organizations to deliver content at public events
- Reassess owner behavior at dog parks at the conclusion of the educational campaign

Lessons Learned:

- Field observations/surveys of pet owner behavior
- Video engagement was most successful when shared through the right partners (Humane society, city page)
- In person engagement proved to be the most impactful means of connecting with the audience and garnered the most public participation (more discussion and surveys).
- Social media outlets provided effective way to disseminate the message; however, this method realized only modest participation in the online survey
- Most people understood the importance of picking up pet waste for sanitary reasons, but were not aware that it is a potential nutrient and water quality issue.
- Partnering with other groups/organizations increased the reach. However, it may prove more fruitful for recording and reporting engagement numbers to select a few who are willing to monitor and report the responses.

Folder Content:

Current Practices Survey (Survey_NoPandPets_CurrentPractice)	<p><u>Purpose</u>: assess homeowners' current practices.</p> <p><u>Objective</u>: Develop baseline to assess behavior change over time. Provides basis of comparison to national survey results.</p> <p><u>Delivery/Utilization</u>: administered prior to delivery of workshop materials and at events where there is a booth or table.</p>
Pre- post Survey (Survey_NoPandPets_pre_post)	<p><u>Purpose</u>: assess participants understanding before and after delivery of workshop educational materials and change in attitudes.</p> <p><u>Objective</u>: Identify gaps in understanding and potential for additional programming needs or other resources to augment behavior change.</p> <p><u>Delivery/Utilization</u>: administered at the end of a workshop or presentation.</p>
P Soil Test Levels MS4 County	Powerpoint format of the 20-year soil test data for each MS4 county. Data are to be utilized for local comparison. (same info as in No P folder)
Tri-fold poster	Three posters for 24x36 display boards. <u>Panel 1</u> : explains what nutrients are and why they are necessary, issues with excess nutrients, and how stormwater runoff carries excess nutrients into

	waterways. <u>Panel 2</u> : explains results from historical KY soil test data that show that most KY soils have plenty of P; explains impacts of pet waste as nutrient (P) source; <u>Panel 3</u> : encourages homeowners to know their R's – right source, rate, time, place, price and thing to do.
Social Media Images (note the PW Pollutes image has an accompanying short article)	Pet Waste Pollutes: 800 x 800 image to educate that pet waste is more than a mess for us and pups, it impacts our waterways. Petwaste_nutrients_pathogens: 800x800 relates specific concerns with water quality; PickupPW_protects: 800x800 encourages that “Bag the Doo” protects all of us.
Pet_Waste brochure (one page/double sided ~3 ½ x8 ½) png and pdf formats as well as pdf with crops and bleeds for professional printing	Explains the issues with pet waste, concerns with nutrients and pathogens, and relationship to stormwater runoff. The brochure can be printed in-house. However, best print quality will be achieved if done by a professional printer. Your MS4 coordinator might be able to provide funds to assist with printing.
PW_DataSheets	Excel file with tab 1) outlining suggested program development and considerations, 2) data sheet for observations, 3) tracking sheet for social media

Resources:

HENV-402: Water Quality and Nutrient Management at Home

<http://www2.ca.uky.edu/agcomm/pubs/HENV/HENV402/HENV402.pdf>

AVMA, pet owner statistics: <https://www.avma.org/resources-tools/reports-statistics/us-pet-ownership-statistics>

HENV-203: Stormwater

EPA website fact sheet: <https://cfpub.epa.gov/npstbx/files/Pet%20care%20fact%20sheet.pdf>

ENRI Website: <https://water.ca.uky.edu/content/scoop-poop-pet-waste-issues>